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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/676,703 | 09/29/2000 | Ilya A. Korisch | 4142-4007 | 1553 |

7590 10/03/2002
MORGAN & FINNEGAN, L.L.P.
345 Park Avenue
New York, NY 10154

EXAMINER

MILLER, BRANDON J

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| ART UNIT | PAPER NUMBER |
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2683

DATE MAILED: 10/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/676,703

Applicant(s)

KORISCH ET AL.

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 14, 19, 20, 21, 24, 25, 26, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Rinot.

Regarding claim 1 Rinot teaches an apparatus having an RF circuitry portion (see abstract). Rinot also teaches an antenna creating an electromagnetic field and an active shield substantially canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 1, lines 64-67 and col. 2, lines 3-8).

Regarding claim 2 Rinot teaches an active shield that is coupled to an RF circuitry portion of a device (see col. 6, lines 20-23).

Regarding claim 14 Rinot teaches an apparatus having an RF circuitry portion (see abstract). Rinot also teaches an antenna creating an electromagnetic field and a plurality of

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active shields substantially canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 1, lines 64-67, col. 2, lines 3-8, and col. 4, lines 25-27).

Regarding claim 19 Rinot teaches an antenna creating an electromagnetic field and canceling the effects of an electromagnetic field in a predetermined region (see col. 5, lines 7-10).

Regarding claim 20 Rinot teaches generating an electromagnetic field in a predetermined region and canceling the effects of an electromagnetic field in a predetermined region using an active shield (see col. 5, lines 7-10).

Regarding claim 21 Rinot teaches coupling an RF circuitry portion to an active shield (see col. 6, lines 20-23).

Regarding claim 24 Rinot teaches generating an electromagnetic field from an antenna (see col. 5, lines 7-10). Rinot also teaches canceling the effects of an electromagnetic field in a predetermined region using a plurality of active shields (see abstract, col. 1, lines 64-67, col. 2, lines 3-8, and col. 4, lines 25-27).

Regarding claim 25 Rinot teaches generating an electromagnetic field from an antenna (see col. 5, lines 7-10). Rinot also teaches canceling the effects of an electromagnetic field in a predetermined region using an active shield (see abstract, col. 1, lines 64-67, col. 2, lines 3-8, and col. 4, lines 25-27).

Regarding claim 26 Rinot teaches coupling an RF circuitry portion to an active shield (see col. 6, lines 20-23).

Regarding claim 29 Rinot teaches generating an electromagnetic field from an antenna (see col. 5, lines 7-10). Rinot also teaches canceling the effects of an electromagnetic field in a

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predetermined region using a plurality of active shields (see abstract, col. 1, lines 64-67, col. 2, lines 3-8, and col. 4, lines 25-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 5, 15, 16, 17, 18, 22, 23, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinot in view of Sano.

Regarding claim 3 Rinot teaches a device as recited in claim 1 except for an adjustment circuit located between an antenna and an RF circuitry portion. Sano teaches an adjustment circuit for adjusting the phase of a signal (see col. 6, lines 30-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Rinot adapt to include an adjustment circuit located between an antenna and an RF circuitry portion because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 4 Rinot teaches a coupler located between RF circuitry (see col. 14, lines 56-58).

Regarding claim 5 Rinot teaches a coupler located between RF circuitry and adjustment circuit (see col. 14, lines 59-61).

Regarding claim 15 Rinot teaches a device as recited in claim 1 except for a plurality of adjustment circuits located between an RF circuitry portion and a plurality of active shields.

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Rinot further teaches a plurality of active shields (see col. 4, lines 25-27). Sano teaches an adjustment circuit for adjusting the phase of a signal (see col. 6, lines 30-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Rinot adapt to include an adjustment circuit located between an antenna and an RF circuitry portion because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 16 Sano teaches an adjustment circuit that includes a phase shifter and a variable gain amplifier (see col. 6, lines 31-35).

Regarding claim 17 Sano teaches a control circuit (see col. 6, lines 40-43).

Regarding claim 18 Rinot teaches a number of active shields that is approximately four (see col. 4, lines 25-28).

Regarding claim 22 Rinot teaches a device as recited in claim 20 except for phase shifting and amplifying a signal from an antenna before a signal reaches an active shield. Rinot further teaches an active shield (see col. 5, lines 7-10). Sano teaches phase shifting and amplifying a signal from an antenna (see col. 9, lines 11-15 and col.12, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Rinot adapt to include phase shifting and amplifying a signal from an antenna before a signal reaches an active shield because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 23 Rinot and Sano teach a device as recited in claim 22 except for feeding back from a sensor located in proximity to an active shield a signal which is used to vary the phase shifting and amplifying. Rinot further teaches infrared communication (see col. 2,

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lines 32-33). Sano further teaches receiving a signal from an antenna (see col. 6, lines 51-52) and a phase shifter and a variable gain amplifier (see col. 9, lines 11-15 and col.12, lines 40-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include feeding back from a sensor located in proximity to an active shield a signal which is used to vary the phase shifting and amplifying because this would allow for a variable phase shifter and amplifier circuit that controls the phase of a received signal from an antenna.

Regarding claim 27 Rinot and Sano teach a device as recited in claim 22 and is rejected given the same reasoning as above.

Regarding claim 28 Rinot and Sano teach a device as recited in claim 23 and is rejected given the same reasoning as above.

Claims 6, 7, 8, 9, 10, 11, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinot in view of Sano and Wilson.

Regarding claim 6 Rinot and Sano teach a device as recited in claim 3 except for an adjustment circuit receiving a reduced antenna signal. Wilson teaches receiving a reduced antenna signal (see col. 3, lines 36-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Rinot and Sano adapt to include an adjustment circuit receiving a reduced antenna signal because this would allow for a device that provides an attenuating effect to radiation from a mobile communication device.

Regarding claim 7 Rinot, Sano, and Wilson teach a device as recited in claim 6 except for a reduced antenna signal that is approximately 10 % of an antenna signal. Wilson further teaches reducing an antenna signal (see col. 1, lines 30-33). Although Wilson fails to disclose an

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antenna signal reduced by approximately 10% it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a reduced antenna signal that is approximately 10 % of an antenna signal because this would allow for a device that provides an attenuating effect to radiation from a mobile communication device.

Regarding claim 8 Sano teaches a circuit that includes a phase shifter (see col. 6, lines 31-33).

Regarding claim 9 Sano teaches a circuit that includes a variable gain amplifier (see col. 6, lines 31-33).

Regarding claim 10 Wilson teaches a circuit that includes an attenuator (see col. 1, lines 30-32).

Regarding claim 11 Rinot further teaches infrared communication located in proximity to an active shield (see col. 2, lines 32-33).

Regarding claim 12 Sano teaches a control circuit (see col. 6, lines 40-43).

Regarding claim 13 Wilson teaches a predetermined region that is near an operator's earpiece (see col. 3, lines 55-57).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wong U.S. Patent Application 6,341,217 discloses a portable telephone with shielded transmission antenna.

Spann U.S. Patent Application 5,819,162 discloses an electro-magnetic interference shield for a telephone handset.

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Liu U.S. Patent Application 6,359,216 discloses an electromagnetic wave shield pad for mobile phone.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

September 26, 2002



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600